

## SEQUENCE LISTING

<110> The Regents of the University of California  
 <120> Methods for Inhibiting Angiogenesis, Cell Migration, Cell Adhesion, and Cell Survival  
 <130> UCSD-07947  
 <160> 116  
 <170> PatentIn version 3.2  
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 35 40 45  
 Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn Phe Val Val Leu Gly  
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 Ala Ser Ile Val His Arg Asp Gly Gly Ser Gln Arg Pro Pro Lys Lys  
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&lt;223&gt; Synthetic

&lt;400&gt; 3

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gttggttctc gagcttctat agttcacaga gatgggtgggt cccagagacc cccaaaaaag      240
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&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

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&lt;223&gt; Synthetic

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Phe Val Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln
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Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Glu Lys
35                40                45

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Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asn Val Leu Thr Lys Ala
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Lys Ser Gln
65

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&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

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&lt;223&gt; Synthetic

&lt;400&gt; 5

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 <213> Homo sapiens

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 Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
 50 55 60  
 Phe Val Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln  
 65 70 75 80  
 Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Glu Lys  
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<210> 15  
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 <213> Homo sapiens

<400> 15

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			20					25					30		
Val	Ser	Glu	Ile	Gln	Leu	Met	His	Asn	Leu	Gly	Lys	His	Leu	Asn	Ser
		35					40					45			
Met	Glu	Arg	Val	Glu	Trp	Leu	Arg	Lys	Lys	Leu	Gln	Asp	Val	His	Asn
	50					55					60				

Phe Val Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln  
65 70 75 80

Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Glu Lys  
85 90 95

Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asn Val Leu Thr Lys Ala  
100 105 110

Lys Ser Gln  
115

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<212> DNA  
<213> Homo sapiens

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<210> 18
<211> 115
<212> PRT
<213> Mus musculus

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<400> 18

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```

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala Ser
          35          40          45

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Met Glu Arg Met Gln Trp Leu Arg Arg Lys Leu Gln Asp Met His Asn
          50          55          60

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Phe Val Ser Leu Gly Val Gln Met Ala Ala Arg Asp Gly Ser His Gln
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Lys Pro Thr Lys Lys Glu Glu Asn Val Leu Val Asp Gly Asn Pro Lys
          85          90          95

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Lys Ser Gln
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<210> 19
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<213> Mus musculus

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<210> 20
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<212> DNA
<213> Homo sapiens

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<210> 21  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 21

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Cys Trp Leu Val Pro Ala Pro Gly Lys Pro Gly Val Gly Gly Gly Ser  
 20 25 30

Val Leu Thr Arg Gly Ala Pro Gly Ile Gln Asp Ala Ser Arg Gly Leu  
 35 40 45

Trp Leu Pro Val Leu Met Lys Asp Ser Ala Ser Ala Ser Thr Leu Gly  
 50 55 60

Thr Gly Ser Trp Val Ala Lys Pro Ser Gln Arg Lys Asp Trp Ala Gln  
 65 70 75 80

Leu Arg Leu Ser

<210> 22  
 <211> 1675  
 <212> DNA  
 <213> Homo sapiens

<400> 22

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aaaactgaat gtactgattt agaaaatata tataaatata tattgttaaa tatac 1675

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<210> 23
<211> 115
<212> PRT
<213> Felis catus

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<400> 23

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Met Met Ser Ala Lys Asp Met Val Lys Val Met Val Val Met Phe Ala
1          5          10          15

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Ile Cys Phe Leu Ala Lys Ser Asp Gly Lys Pro Val Lys Lys Arg Ser
          20          25          30

```

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Val Ser Glu Ile Gln Phe Met His Asn Leu Gly Lys His Leu Ser Ser
          35          40          45

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```

Val Glu Arg Val Glu Trp Leu Arg Arg Lys Leu Gln Asp Val His Asn
          50          55          60

```

```

Phe Val Ala Leu Gly Ala Pro Ile Ala His Arg Asp Gly Gly Ser Gln
65          70          75          80

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Arg Pro Arg Lys Lys Glu Asp Asn Val Pro Ala Glu Asn His Gln Lys
          85          90          95

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Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asp Val Leu Ile Lys Ala
          100          105          110

```

```

Lys Ser Gln
          115

```

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<210> 24
<211> 737

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&lt;212&gt; DNA

&lt;213&gt; Felis catus

&lt;400&gt; 24

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cttgcaaaat cggatgggaa acctgttaag aagaggtctg tgagtgaaat acagtttatg      180
cataacctgg gcaagcatct gagctccgtg gagagggtag aatggctgcg gaggaaacta      240
caggatgtac acaactttgt cgccctcgga gctccaatag ctcacagaga tgggtggttcc      300
cagaggcccc gaaaaaagga agacaatgtc ccggctgaga accatcaaaa aagtcttgga      360
gaagcagaca aagctgatgt ggatgtgtta atcaaagcta aatcccagtg aagacagagc      420
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aaaaaaaaaa aaaaaaaa                                     737

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&lt;210&gt; 25

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 25

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Met Met Ser Ala Ser Thr Met Ala Lys Val Met Ile Leu Met Leu Ala
1           5           10           15

Val Cys Leu Leu Thr Gln Ala Asp Gly Lys Pro Val Lys Lys Arg Ala
          20           25           30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala Ser
          35           40           45

Val Glu Arg Met Gln Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn
          50           55           60

Phe Val Ser Leu Gly Val Gln Met Ala Ala Arg Glu Gly Ser Tyr Gln
65           70           75           80

Arg Pro Thr Lys Lys Glu Glu Asn Val Leu Val Asp Gly Asn Ser Lys
          85           90           95

Ser Leu Gly Glu Gly Asp Lys Ala Asp Val Asp Val Leu Val Lys Ala
          100          105          110

Lys Ser Gln
          115

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<210> 26  
 <211> 704  
 <212> DNA  
 <213> *Rattus norvegicus*

<400> 26  
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<210> 27  
 <211> 115  
 <212> PRT  
 <213> *Macaca fascicularis*

<400> 27

Met Ile Pro Ala Lys Asp Met Ala Lys Val Met Ile Val Met Leu Ala  
 1 5 10 15

Ile Cys Phe Leu Thr Lys Ser Asp Gly Lys Ser Val Lys Lys Arg Ser  
 20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn Ser  
 35 40 45

Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
 50 55 60

Phe Ile Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln  
 65 70 75 80

Arg Pro Arg Lys Lys Glu Asp Asn Ile Leu Val Glu Ser His Glu Lys  
 85 90 95

Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asp Val Leu Thr Lys Ala  
 100 105 110

Lys Ser Gln  
115

<210> 28  
<211> 606  
<212> DNA  
<213> *Macaca fascicularis*

<400> 28  
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gacatggcta aagtaatgat tgtcatgttg gcaatttgct ttcttacaaa atcagatggg 180  
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ggcaac 606

<210> 29  
<211> 552  
<212> DNA  
<213> *Mus musculus*

<400> 29  
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<210> 30  
<211> 115  
<212> PRT  
<213> *Mus musculus*

<400> 30

Met Met Ser Ala Asn Thr Val Ala Lys Val Met Ile Ile Met Leu Ala  
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Val Cys Leu Leu Thr Gln Thr Asp Gly Lys Pro Val Arg Lys Arg Ala  
20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala Ser  
35 40 45

Met Glu Arg Met Gln Trp Leu Arg Arg Lys Leu Gln Asp Met His Asn  
50 55 60

Phe Val Ser Leu Gly Val Gln Met Ala Ala Arg Asp Gly Ser His Gln  
65 70 75 80

Lys Pro Thr Lys Lys Glu Glu Asn Val Leu Val Asp Gly Asn Pro Lys  
85 90 95

Ser Leu Gly Glu Gly Asp Lys Ala Asp Val Asp Val Leu Val Lys Ser  
100 105 110

Lys Ser Gln  
115

<210> 31  
<211> 1045  
<212> DNA  
<213> Mus musculus

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<210> 32  
 <211> 100  
 <212> DNA  
 <213> Homo sapiens

<400> 32  
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<210> 33  
 <211> 115  
 <212> PRT  
 <213> Sus scrofa

<400> 33

Met Met Ser Ala Lys Asp Thr Val Lys Val Met Val Val Met Leu Ala  
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Ile Cys Phe Leu Ala Arg Ser Asp Gly Lys Pro Ile Lys Lys Arg Ser  
 20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ser Ser  
 35 40 45

Leu Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
 50 55 60

Phe Val Ala Leu Gly Ala Ser Ile Val His Arg Asp Gly Gly Ser Gln  
 65 70 75 80

Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Gln Lys  
 85 90 95

Ser Leu Gly Glu Ala Asp Lys Ala Ala Val Asp Val Leu Ile Lys Ala  
 100 105 110

Lys Pro Gln  
 115

<210> 34  
 <211> 698  
 <212> DNA  
 <213> Sus scrofa

<400> 34  
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<210> 35  
<211> 102  
<212> PRT  
<213> Bos taurus

<400> 35

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Arg Asn Ile Leu Ile Phe Asn Phe Thr Phe Lys Tyr Asn Lys Met Met  
20 25 30

Trp Trp Trp Phe Ser Ala Lys Ser Cys Pro Thr Leu Val Thr Pro Trp  
35 40 45

Thr Val Ala Ala Ser Ser Ser Val His Gly Phe Phe Arg Ala Arg Ile  
50 55 60

Leu Glu Trp Val Ala Ile Ser Phe Ser Gly Glu Ser Ser Gln Ser Arg  
65 70 75 80

Asn Gln Thr Gln Val Ser Cys Ile Ala Gly Glu Ile Leu Tyr Gln Leu  
85 90 95

Ser Tyr Glu Arg Ser Leu  
100

<210> 36  
<211> 641  
<212> DNA  
<213> Bos taurus

<400> 36

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aatgatacag actggtccaa tatggcttgt aaagtaagca taatgtaata tgattcatta 240

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taatcctcat aataattgtg ccaatgttat ggctgtaaga aatatactta ttttcaattt      300
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<210> 37
<211> 296
<212> DNA
<213> Bos taurus

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<400> 37
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ggtatagaat caccttcaat gcaggagacc ctggttcaat tcttgggttg ggacgatcca      240
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<210> 38
<211> 115
<212> PRT
<213> Homo sapiens

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<400> 38

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Met Ile Pro Ala Lys Asp Met Ala Lys Val Met Ile Val Met Leu Ala
1           5           10          15

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Ile Cys Phe Leu Thr Lys Ser Asp Gly Lys Ser Val Lys Lys Arg Ser
          20          25          30

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```

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn Ser
          35          40          45

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Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn
          50          55          60

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Phe Val Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln
          65          70          75          80

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Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Glu Lys
          85          90          95

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Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asn Val Leu Thr Lys Ala
          100         105         110

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Lys Ser Gln  
115

<210> 39  
<211> 772  
<212> DNA  
<213> Homo sapiens

<400> 39  
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caatttgttt tcttacaaaa tcggatggga aatctgttaa gaagagatct gtgagtga 180  
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<210> 40  
<211> 115  
<212> PRT  
<213> Rattus norvegicus

<400> 40

Met Met Ser Ala Ser Thr Met Ala Lys Val Met Ile Leu Met Leu Ala  
1 5 10 15

Val Cys Leu Leu Thr Gln Ala Asp Gly Lys Pro Val Lys Lys Arg Ala  
20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala Ser  
35 40 45

Val Glu Arg Met Gln Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
50 55 60

Phe Val Ser Leu Gly Val Gln Met Ala Ala Arg Glu Gly Ser Tyr Gln  
65 70 75 80

Arg Pro Thr Lys Lys Glu Glu Asn Val Leu Val Asp Gly Asn Ser Lys  
85 90 95

Ser Leu Gly Glu Gly Asp Lys Ala Asp Val Asp Val Leu Val Lys Ala  
 100 105 110

Lys Ser Gln  
 115

<210> 41  
 <211> 704  
 <212> DNA  
 <213> Rattus norvegicus

<400> 41  
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 gccaccaag aaggaggaaa atgtccttgt tgatggcaat tcaaaaagtc ttggcgaggg 420  
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<210> 42  
 <211> 115  
 <212> PRT  
 <213> Rattus norvegicus

<400> 42

Met Met Ser Ala Ser Thr Met Ala Lys Val Met Ile Leu Met Leu Ala  
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Val Cys Leu Leu Thr Gln Ala Asp Gly Lys Pro Val Lys Lys Arg Ala  
 20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Ala Ser  
 35 40 45

Val Glu Arg Met Gln Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
 50 55 60

Phe Val Ser Leu Gly Val Gln Met Ala Ala Arg Glu Gly Ser Tyr Gln  
 65 70 75 80

Arg Pro Thr Lys Lys Glu Glu Asn Val Leu Val Asp Gly Asn Ser Lys  
85 90 95

Ser Leu Gly Glu Gly Asp Lys Ala Asp Val Asp Val Leu Val Lys Ala  
100 105 110

Lys Ser Gln  
115

<210> 43  
<211> 973  
<212> DNA  
<213> Rattus norvegicus

<400> 43  
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<210> 44  
<211> 709  
<212> DNA  
<213> Rattus norvegicus

<400> 44  
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tgagacgcta tctcaaactg ttttaaataat aaaatcagta tcatggatta cgtcagattt 180  
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tcctgaagga tcctctctga gagtcattgt atggtaagga atctctcaat tgccctttta      540
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<210> 45
<211> 523
<212> DNA
<213> Gallus gallus

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<223> n is a, c, g, or t

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<220>
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<222> (438)..(443)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (449)..(451)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (492)..(494)
<223> n is a, c, g, or t

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aagatcagta gagggggatca gccgcagact caaacggggc gtatcagagc accagctact      180
gcatgacaag ggcaaatcaa tccaagactt acgaagaagg atattccttc aaaatttaat      240
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aactcaggag acaaacaat cacagaccta caaggaacag cccctgaagg tatcagggaa      420
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<210> 46
<211> 175
<212> PRT
<213> Mus musculus

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<400> 46

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Met Leu Arg Arg Leu Val Gln Gln Trp Ser Val Leu Val Phe Leu Leu  
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Ser Tyr Ser Val Pro Ser Arg Gly Arg Ser Val Glu Gly Leu Gly Arg  
20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Arg Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Pro Ser Thr Ala Ala Ser Gly Leu Leu Glu Asp Pro Leu  
145 150 155 160

Pro His Thr Ser Arg Thr Ser Leu Glu Pro Ser Leu Arg Thr His  
165 170 175

<210> 47

<211> 1592

<212> DNA

<213> Mus musculus

<400> 47

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 acacataaaa ggatctctat tttgtggttc attttaatga gttctgaaat ataattatct 1500  
 agactgattt ccttctgtgc atgtaaaaat ggcagtattt taaatttggt aaataatgtc 1560  
 taataaaata taatctaatt ataccatgac tc 1592

<210> 48  
 <211> 242  
 <212> DNA  
 <213> *Felis catus*

<400> 48  
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 tcccattgct ctatgaaact gcacattgggt cattgtgaat atttttttgc caaggctaata 180  
 ccaattatta ttatcacatt taccataatt tattttgtca actgatgtat ttatttttga 240  
 aa 242

<210> 49  
 <211> 351  
 <212> DNA  
 <213> *Felis catus*

<400> 49  
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 tccactgtgg cttggacaaa cctagaatgt cctcccttct tgccttcta tcaattgctc 120  
 cacaatttca aagcttaatg aaagcaagat ggctcagaat attgtctgct ttcatacagt 180  
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<210> 50  
 <211> 94  
 <212> PRT  
 <213> Felis catus

<400> 50

Leu Leu Ser Tyr Ser Val Pro Ser Cys Gly Arg Ser Val Glu Glu Leu  
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Gly Arg Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp  
 20 25 30

Lys Gly Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His  
 35 40 45

Leu Ile Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val  
 50 55 60

Ser Pro Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg  
 65 70 75 80

Phe Gly Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr  
 85 90

<210> 51  
 <211> 282  
 <212> DNA  
 <213> Felis catus

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 cgacgacgat tottccttca ccacctgatt gcagaaatcc acacagctga aatcagagct 180  
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<210> 52  
 <211> 202  
 <212> PRT  
 <213> Oryctolagus cuniculus

<400> 52

Met Gln Arg Arg Leu Val Gln Gln Trp Ser Val Ala Val Phe Leu Leu  
 1 5 10 15

Ser Tyr Ala Val Pro Ser Cys Gly Arg Ser Val Glu Gly Leu Ser Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
65 70 75 80

Asn Ser Lys Pro Ser Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Leu Asp Ser Gly Val Thr Gly Ser Gly Leu Glu Gly Asp  
145 150 155 160

His Leu Ser Asp Thr Phe Thr Thr Ser Leu Gly Ala Arg Phe Thr Tyr  
165 170 175

Ser Thr Ser Val Gly Phe Glu Lys Lys Lys Gly Lys Gln Gln Lys Asn  
180 185 190

Thr Ser Tyr Ala Thr Asn Asp Leu Ile Ile  
195 200

<210> 53  
<211> 650  
<212> DNA  
<213> *Oryctolagus cuniculus*

<400> 53  
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tacgcggtgc cctcctgcgg gcgctcggtg gaggggtctca gccgccgcct caaaagagct 120  
gtgtctgaac atcagctcct ccatgacaag gggaagtcca tccaagattt acggcgacga 180  
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aagaaaaaac ggcgaactcg ctctgcctgg ttagactctg gagtgactgg gagtgggcta 480  
gaaggggacc acctgtctga caccttcaca acgtcgcttg gagctcgatt cacgtacagc 540

actttctgtgg ggtttgaaaa aaaaaaagga aaacaacaga agaacacatc atatgcaact 600  
aatgatctca ttatttaaga gttccctgtt actttcttttag tctagaccca 650

<210> 54  
<211> 175  
<212> PRT  
<213> Mus musculus

<400> 54

Met Leu Arg Arg Leu Val Gln Gln Trp Ser Val Leu Val Phe Leu Leu  
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Ser Tyr Ser Val Pro Ser Arg Gly Arg Ser Val Glu Gly Leu Gly Arg  
20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Arg Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Pro Ser Thr Ala Ala Ser Gly Leu Leu Glu Asp Pro Leu  
145 150 155 160

Pro His Thr Ser Arg Pro Ser Leu Glu Pro Ser Leu Arg Thr His  
165 170 175

<210> 55  
<211> 572  
<212> DNA  
<213> Mus musculus

<400> 55

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gctacctcgg aggtgtcccc caactccaaa cctgctccca acaccaaaaa ccaccccggtg 300  
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 tacaagaac agccactcaa gacaccggg aagaagaaga aaggcaagcc tgggaaacgc 420  
 agagaacagg agaaaaagaa gcgaaggact cggctctgcct ggccaagcac agctgagagt 480  
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<210> 56  
 <211> 162  
 <212> PRT  
 <213> Sparus aurata

<400> 56

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Leu Cys Ser Pro Val Thr Leu Asp Gly Lys Pro Val Asp Ala Leu Gly  
 20 25 30

Ser Arg Thr Arg Arg Ser Val Ser His Ala Gln Leu Met His Asp Lys  
 35 40 45

Gly Arg Ser Leu Gln Glu Phe Lys Arg Arg Met Trp Leu His Glu Leu  
 50 55 60

Leu Glu Glu Val His Thr Ala Asp Asp Arg Pro Val Gln Ser Arg Thr  
 65 70 75 80

Gln Ser Gln Thr Phe Ser Gly Asn Ala Leu His Glu Lys Pro Pro Gly  
 85 90 95

Ala Thr Lys Asn Ile Pro Asp Arg Phe Arg Leu Asp Arg Glu Gly Pro  
 100 105 110

Asn Leu Pro Gln Glu Thr Asn Lys Ala Leu Ala Tyr Lys Asp Gln Pro  
 115 120 125

Leu Lys Val Ala Thr Lys Arg Lys Lys Lys Val Arg Leu Gly Arg Arg  
 130 135 140

Arg Glu Ser Asp Lys Lys Arg Arg Arg Ala Arg Ser Val Thr Thr Lys  
 145 150 155 160

Glu Gln

<210> 57  
 <211> 1787

&lt;212&gt; DNA

<213> *Sparus aurata*

&lt;400&gt; 57

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&lt;210&gt; 58

&lt;211&gt; 177

&lt;212&gt; PRT

&lt;213&gt; Oryctolagus cuniculus

&lt;400&gt; 58

Met Leu Arg Arg Leu Val Gln Gln Trp Ser Val Ala Val Phe Leu Leu  
 1 5 10 15

Ser Tyr Ser Val Pro Ser Cys Gly Arg Ser Val Glu Gly Pro Gly Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
 35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
 50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
 65 70 75 80

Asn Ser Lys Pro Ala Ala Asn Thr Lys Asn His Ala Val Arg Phe Gly  
 85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
 100 105 110

Pro Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
 115 120 125

Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
 130 135 140

Ser Ala Trp Pro Leu Ser Ala Gly Ala Gly Ser Gly Leu Ala Gly Asp  
 145 150 155 160

His Leu Ser Asp Ile Ser Glu Pro Glu Pro Glu Leu Asp Ser Arg Arg  
 165 170 175

His

&lt;210&gt; 59

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Oryctolagus cuniculus

&lt;400&gt; 59

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<210> 60  
 <211> 163  
 <212> PRT  
 <213> Takifugu rubripes

<400> 60

Met Cys Ser Val Val Met Leu His Gln Trp Ser Leu Ala Val Phe Leu  
 1 5 10 15

Leu Cys Ser Pro Val Thr Leu Asp Gly Lys Pro Val Asp Ala Val Ser  
 20 25 30

Ser Arg Met Arg Arg Ser Val Ser His Ala Gln Leu Met His Asp Lys  
 35 40 45

Gly Arg Ser Leu Gln Glu Phe Arg Arg Arg Met Trp Leu His Lys Leu  
 50 55 60

Leu Glu Glu Val His Thr Ala Asn Glu Glu Ala Pro Pro Val Gln Ser  
 65 70 75 80

Arg Thr Gln Thr Gln Thr Phe Ser Gly Asn Ser Leu His Glu Lys Pro  
 85 90 95

Pro Gly Ala Thr Lys Asn Leu Pro Asp Arg Phe Ser Leu Asp Arg Glu  
 100 105 110

Gly Thr Asn Leu Pro Gln Glu Thr Asn Lys Ala Leu Ala Tyr Lys Asp  
 115 120 125

Gln Pro Leu Lys Leu Ala Thr Lys Arg Lys Lys Lys Ala Arg Leu Gly  
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Arg His Arg Glu Ala Asp Lys Lys Arg Arg Arg Ala Arg Ser Val Ala  
 145 150 155 160

Lys Glu Pro

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 <213> Takifugu rubripes

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 <211> 249  
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 <213> Artificial Sequence

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 aaaaaaagaa acgtcgtacg cgttctgctt ggctggactc tgggtgttacc ggatccggtc 180  
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 actaataag 249

<210> 63  
 <211> 207  
 <212> DNA  
 <213> Artificial Sequence

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 <223> Synthetic

<400> 63  
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 acgacgaagg tcggtacctg taataag 207

<210> 64  
 <211> 177  
 <212> PRT  
 <213> Canis familiaris

<400> 64

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Ser Tyr Ser Val Pro Ser Cys Gly Arg Ser Val Glu Glu Leu Gly Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
 35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
 50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Leu Asn Ser Gly Val Ala Glu Ser Gly Leu Glu Gly Asp  
145 150 155 160

His Pro Tyr Asp Ile Ser Ala Thr Ser Leu Glu Leu Asn Leu Arg Arg  
165 170 175

His

<210> 65  
<211> 1166  
<212> DNA  
<213> Canis familiaris

<400> 65  
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gagaggactg taaatcaagg aaaagggtccc gcgagcgaca ggggacgatg ctgcggaggc 180  
tggttcagca gtggggcgctc gcggtgttcc tgctgagcta ctcggtgccc tcctgcgggc 240  
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ctccaacac aaagaaccac cccgtccgat ttgggtctga tgatgagggc agatacctaa 480  
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<210> 66  
 <211> 175  
 <212> PRT  
 <213> Mus musculus

<400> 66

Met Leu Arg Arg Leu Val Gln Gln Trp Ser Val Leu Val Phe Leu Leu  
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Ser Tyr Ser Val Pro Ser Arg Gly Arg Ser Val Glu Gly Leu Gly Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
 35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
 50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
 65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
 85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
 100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
 115 120 125

Lys Pro Gly Lys Arg Arg Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
 130 135 140

Ser Ala Trp Pro Ser Thr Ala Ala Ser Gly Leu Leu Glu Asp Pro Leu  
 145 150 155 160

Pro His Thr Ser Arg Thr Ser Leu Glu Pro Ser Leu Arg Thr His  
 165 170 175

<210> 67  
 <211> 971  
 <212> DNA  
 <213> Mus musculus

<400> 67

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<210> 68  
 <211> 175  
 <212> PRT  
 <213> Mus musculus

<400> 68

Met Leu Arg Arg Leu Val Gln Gln Trp Ser Val Leu Val Phe Leu Leu  
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Ser Tyr Ser Val Pro Ser Arg Gly Arg Ser Val Glu Gly Leu Gly Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
 35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
 50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
 65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
 85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
 100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
 115 120 125

Lys Pro Gly Lys Arg Arg Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
 130 135 140

Ser Ala Trp Pro Ser Thr Ala Ala Ser Gly Leu Leu Glu Asp Pro Leu  
 145 150 155 160

Pro His Thr Ser Arg Thr Ser Leu Glu Pro Ser Leu Arg Thr His  
 165 170 175

<210> 69

<211> 935

<212> DNA

<213> Mus musculus

<400> 69

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<210> 70

<211> 175

<212> PRT

<213> Mus musculus

<400> 70

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Ser Tyr Ser Val Pro Ser Arg Gly Arg Ser Val Glu Gly Leu Gly Arg  
20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
65 70 75 80

Asn Ser Lys Pro Ala Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Arg Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Pro Ser Thr Ala Ala Ser Gly Leu Leu Glu Asp Pro Leu  
145 150 155 160

Pro His Thr Ser Arg Thr Ser Leu Glu Pro Ser Leu Arg Thr His  
165 170 175

<210> 71  
<211> 1869  
<212> DNA  
<213> Mus musculus

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<210> 72
<211> 177
<212> PRT
<213> Homo sapiens

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<400> 72

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Ser Tyr Ala Val Pro Ser Cys Gly Arg Ser Val Glu Gly Leu Ser Arg
20           25           30

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Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly
35           40           45

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Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile
50           55           60

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Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro
65           70           75           80

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Asn Ser Lys Pro Ser Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
115 120 125

Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
130 135 140

Ser Ala Trp Leu Asp Ser Gly Val Thr Gly Ser Gly Leu Glu Gly Asp  
145 150 155 160

His Leu Ser Asp Thr Ser Thr Thr Ser Leu Glu Leu Asp Ser Arg Arg  
165 170 175

His

<210> 73  
<211> 1025  
<212> DNA  
<213> Homo sapiens

<400> 73  
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ctattttgtg gttgatttta atgaatgcct aaatataatt atccaaattg attttccttc 960

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 attac 1025

<210> 74  
 <211> 258  
 <212> PRT  
 <213> Leishmania major

<400> 74

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Thr Ala Ala Ser Arg Ser Ala His Ala Met Phe Pro Ser Thr Trp Tyr  
 35 40 45

Ser Ala Leu Lys Pro Lys Ala Ala Tyr Tyr Phe Ala Lys Pro Asp Thr  
 50 55 60

Ser Ser Trp Lys Leu Ser Asp Phe Glu Leu Lys Asn Thr Leu Gly Thr  
 65 70 75 80

Gly Ser Phe Gly Arg Val Arg Ile Ala His Arg Lys Gly Thr Glu Glu  
 85 90 95

Tyr Tyr Ala Ile Lys Cys Leu Arg Lys Arg Glu Ile Ile Lys Met Lys  
 100 105 110

Gln Gln Gln His Val Ala Gln Glu Lys Gly Ile Leu Met Glu Leu Cys  
 115 120 125

His Pro Phe Ile Val Asn Met Met Cys Ser Phe Gln Asp Glu Lys Lys  
 130 135 140

Val Tyr Phe Leu Leu Glu Phe Val Met Gly Gly Glu Met Phe Thr His  
 145 150 155 160

Leu Arg Thr Ala Gly Arg Phe Pro Asn Asp Val Ala Lys Phe Tyr His  
 165 170 175

Ala Lys Leu Val Leu Ala Phe Glu Tyr Leu His Ser Leu Asp Val Ile  
 180 185 190

Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu Asp Asn Lys Gly His  
 195 200 205

Val Lys Met Thr Asp Phe Gly Phe Ala Lys Lys Val Pro Asp Arg Thr  
 210 215 220

Phe Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Gln  
 225 230 235 240

Ser Lys Gly His Gly Lys Ala Val Asp Trp Trp Thr Met Gly Val Leu  
 245 250 255

Leu Tyr

<210> 75  
 <211> 838  
 <212> DNA  
 <213> Leishmania major

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<210> 76  
 <211> 381  
 <212> PRT  
 <213> Leishmania major

<400> 76

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Thr Ala Ala Ser Arg Ser Ala His Ala Met Phe Pro Ser Thr Trp Tyr  
 35 40 45

Ser Ala Leu Lys Pro Lys Val Ala Cys Asn Phe Ala Lys Pro Asp Thr  
 50 55 60  
 Ser Ser Trp Lys Leu Ser Asp Phe Glu Leu Lys Asn Thr Leu Gly Thr  
 65 70 75 80  
 Gly Ser Phe Gly Arg Val Arg Ile Ala His Arg Lys Gly Thr Glu Glu  
 85 90 95  
 Tyr Tyr Ala Ile Lys Cys Leu Arg Lys Arg Glu Ile Ile Lys Met Lys  
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 Gln Gln Gln His Val Ala Gln Glu Lys Gly Ile Leu Met Glu Leu Cys  
 115 120 125  
 His Pro Phe Ile Val Asn Met Met Cys Ser Phe Gln Asp Glu Lys Lys  
 130 135 140  
 Val Tyr Phe Leu Leu Glu Phe Val Met Gly Gly Glu Met Phe Thr His  
 145 150 155 160  
 Leu Arg Thr Ala Gly Arg Phe Pro Asn Asp Val Ala Lys Phe Tyr His  
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 Ala Glu Leu Val Leu Ala Phe Glu Tyr Leu His Ser Leu Asp Val Ile  
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 Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu Asp Asn Lys Gly His  
 195 200 205  
 Val Lys Met Thr Asp Phe Gly Phe Ala Lys Lys Val Pro Asp Arg Thr  
 210 215 220  
 Phe Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Gln  
 225 230 235 240  
 Ser Lys Gly His Gly Lys Ala Val Asp Trp Trp Thr Met Gly Val Leu  
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 Leu Tyr Glu Phe Ile Ala Gly Tyr Pro Pro Phe Tyr Asp Asp Thr Pro  
 260 265 270  
 Phe Arg Ile Tyr Glu Lys Ile Leu Ala Gly Arg Leu Lys Phe Pro Asn  
 275 280 285  
 Trp Phe Asp Gly Arg Ala Arg Asp Leu Val Lys Gly Leu Leu Gln Thr  
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 Asp His Thr Lys Arg Leu Gly Thr Leu Lys Gly Gly Pro Ala Asp Val  
 305 310 315 320

Lys Asn His Pro Tyr Phe His Gly Ala Asn Trp Asp Lys Leu Tyr Ala  
 325 330 335

Arg Tyr Tyr Pro Ala Pro Ile Pro Val Arg Val Lys Ser Pro Gly Asp  
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Thr Ser Asn Phe Glu Lys Tyr Pro Asp Ser Pro Val Asp Arg Thr Pro  
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 <212> DNA  
 <213> Leishmania major

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<210> 78  
 <211> 605  
 <212> PRT  
 <213> Mucor racemosus

<400> 78

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35 40 45

Ser Lys Lys Pro Glu Ala Ala Ala Ala Ala Thr Ala Pro Asn Ala  
50 55 60

Val Asn Glu Ser Thr Thr Thr Pro Thr Thr Met Gln Leu Pro Ala Ser  
65 70 75 80

Glu Lys Ala Thr Ser Gln Leu Glu Ile Asn Val Val Glu Ala Arg Asn  
85 90 95

Leu Thr Ile Ala Asp Ala Arg Lys Ala Asp Thr Tyr Cys Ile Val His  
100 105 110

Tyr Glu Gly Asn Thr Thr Ser Thr Leu Asp Lys Val Asp Asp Gly Ile  
 115 120 125  
 Leu Pro Ser Thr Pro Leu Val Ile Lys Ser Gln Val Ala Ser Gly Ala  
 130 135 140  
 Phe Lys Ala Phe Glu Ile Met Met Ser Ala Ser Ser Pro Lys Trp Met  
 145 150 155 160  
 His Arg Val Asn Phe Asp Val Thr Ala Gly Asn Lys Glu Ile Thr Val  
 165 170 175  
 Phe Val Tyr Asp Arg Gly Asn Lys Leu Pro Asn Gly Glu Asp Arg Phe  
 180 185 190  
 Leu Gly Met Ser Ser Ile Val Pro Asn Leu Val Asn Lys Lys Thr Val  
 195 200 205  
 Glu Leu Ile Phe Pro Leu His Gly Arg Pro Asp Asp Asp Gln Glu Val  
 210 215 220  
 Thr Gly Asp Val Arg Leu Gln Val Thr Phe Ile Asp Pro Lys Lys Ala  
 225 230 235 240  
 Asn Leu Lys Pro Glu Asp Phe Arg Ile Val Arg Met Ile Gly Gln Gly  
 245 250 255  
 Ser Val Gly Lys Val Tyr Glu Val Ile Lys Arg Asp Ser Gly Arg Thr  
 260 265 270  
 Tyr Ala Met Lys Val Leu Ser Lys Arg Leu Leu Leu Ala Glu Asn Glu  
 275 280 285  
 Val Asp Thr Ala Phe Asn Glu Arg Asn Val Leu Val Gln Ser Leu Ser  
 290 295 300  
 Ser Pro Phe Ile Ala Asn Leu Lys Tyr Ser Phe Gln Thr Thr Asn His  
 305 310 315 320  
 Leu Phe Leu Val Met Asp Tyr Phe Pro Gly Gly Glu Leu Phe Asp Phe  
 325 330 335  
 Leu Glu Arg Glu Arg Cys Leu Ser Glu Lys Arg Cys Gln Phe Phe Ala  
 340 345 350  
 Ala Glu Ile Val Cys Ala Phe Asp Asn Ile His Ala Arg Asn Ile Val  
 355 360 365  
 Tyr Arg Asn Leu Lys Pro Glu Ser Ile Leu Leu Asp Ala His Gly His  
 370 375 380

Ile Ala Leu Thr Asp Phe Gly Leu Cys Lys Gln Leu Lys Asn Lys Met  
385 390 395 400

Asp Leu Ile Gln Gly Val Pro Gln Val Ile Thr Gln Glu Tyr Leu Ala  
405 410 415

Pro Glu Met Val Met Gln Lys Pro Tyr Gly Met Ala Ala Asp Trp Trp  
420 425 430

Ser Leu Gly Val Leu Met Phe Glu Leu Leu Thr Gly Ser Pro Pro Phe  
435 440 445

His Ser Val Glu Gln Gly Glu Leu Phe Arg Gln Ile Leu Glu Ala Pro  
450 455 460

Ile Lys Phe Pro Ala Gly Gly Cys Ile Thr Glu Glu Ala Lys Asp Phe  
465 470 475 480

Ile Cys Gln Leu Leu Glu Arg Asp Pro Ala Lys Arg Leu Gly Ser His  
485 490 495

Gly Asp Val Ala Gln Val Lys Ala His Pro Phe Phe Lys Asp Leu Asn  
500 505 510

Trp Asp Val Val Tyr Lys Lys Gln Met Gln Leu Pro Phe Val Pro Glu  
515 520 525

Val Glu Glu Gln Leu Arg Glu Glu Ala Ile Ala Ala Ala Ala Ile  
530 535 540

Ser Ile Pro Val Thr Asn Ser Lys Thr Glu Ser Thr Asn Ala Asn Val  
545 550 555 560

Met Pro Val Ala Asp Gln Ser Lys Phe Lys Gly Phe Ser Tyr Ile Arg  
565 570 575

Glu Asp Val Met Ala Lys Lys Gly Glu His Arg Leu Gly Val Asn Pro  
580 585 590

Glu Asp Glu Asp Pro Glu Val Asp Phe Trp Phe Arg Gln  
595 600 605

<210> 79  
<211> 2578  
<212> DNA  
<213> Mucor racemosus

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 <211> 349  
 <212> PRT  
 <213> *Xenopus laevis*

<400> 80

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Pro Pro Gln Asn Thr Ala Ser Leu Asp Asp Phe Asp Arg Met Lys Thr  
 35 40 45

Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys Gly  
 50 55 60

Ala Glu Gln Tyr Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val Val  
 65 70 75 80

Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu Gln  
 85 90 95

Ala Val Asn Phe Pro Phe Leu Val Arg Leu Glu Tyr Ser Phe Lys Asp  
 100 105 110

Asn Ser Asn Leu Tyr Met Ile Met Glu Tyr Val Pro Gly Gly Glu Met  
 115 120 125

Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala Arg  
 130 135 140

Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser Leu  
 145 150 155 160

Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp Gln  
 165 170 175

Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val Lys  
 180 185 190

Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu  
 195 200 205

Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala Leu  
210 215 220

Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe Ala  
225 230 235 240

Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val Arg  
245 250 255

Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn Leu  
260 265 270

Leu Gln Val Asp Leu Thr Lys Arg Tyr Gly Asn Leu Lys Asn Gly Val  
275 280 285

Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Asp Trp Ile Ala  
290 295 300

Ile Tyr Gln Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Cys Arg Gly  
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Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Gly Ser Phe His Leu  
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Ser Leu Thr Glu Lys Cys Ala Lys Glu Phe Ala Asp Phe  
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<210> 81  
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<212> DNA  
<213> *Xenopus laevis*

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<210> 82  
<211> 351  
<212> PRT  
<213> *Xenopus laevis*

<400> 82

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Ser Pro Ala Gln Asn Thr Ala Asn Leu Asp Gln Phe Glu Arg Met Lys  
35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Arg His Lys  
50 55 60

Glu Asn Gly Ser His Phe Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
 65 70 75 80  
 Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
 85 90 95  
 Gln Ala Val Asn Phe Pro Phe Leu Val Arg Leu Glu Tyr Ser Phe Lys  
 100 105 110  
 Asp Asn Thr Asn Leu Tyr Met Val Met Glu Tyr Val Ala Gly Gly Glu  
 115 120 125  
 Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala  
 130 135 140  
 Arg Phe Tyr Ala Ser Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ala  
 145 150 155 160  
 Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp  
 165 170 175  
 Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val  
 180 185 190  
 Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro  
 195 200 205  
 Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala  
 210 215 220  
 Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe  
 225 230 235 240  
 Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val  
 245 250 255  
 Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn  
 260 265 270  
 Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly  
 275 280 285  
 Val Thr Asp Ile Lys Gly His Lys Trp Phe Ser Thr Thr Asp Trp Ile  
 290 295 300  
 Ala Val Tyr Gln Lys Lys Val Glu Ala Pro Phe Ile Pro Lys Cys Lys  
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 Gly Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Glu Ile  
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Arg Val Ser Ile Thr Glu Lys Cys Ala Lys Glu Phe Ser Asp Phe  
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 <213> *Xenopus laevis*

<400> 83  
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 <211> 309  
 <212> PRT  
 <213> Trypanosoma cruzi

<400> 84

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Arg Val Arg Ile Ala Lys Leu Lys Gly Thr Asn Asp Tyr Tyr Ala Val  
35 40 45

Lys Cys Leu Lys Lys Arg Glu Ile Leu Lys Met Lys Gln Val Gln His  
50 55 60

Ile Ser Gln Glu Lys Gln Ile Leu Met Glu Leu Ser His Pro Phe Ile  
65 70 75 80

Val Asn Met Met Cys Ser Phe Gln Asp Asp Arg Arg Val Tyr Phe Val  
85 90 95

Leu Glu Phe Val Val Gly Gly Glu Met Phe Thr His Leu Arg Ser Ala  
100 105 110

Gly Arg Phe Pro Asn Asp Val Ala Lys Phe Tyr His Ala Glu Ile Val  
115 120 125

Leu Ala Phe Glu Tyr Leu His Ser Lys Asp Ile Ile Tyr Arg Asp Leu  
130 135 140

Lys Pro Glu Asn Leu Leu Leu Asp Ser Lys Gly His Val Lys Val Thr  
145 150 155 160

Asp Phe Gly Phe Ala Lys Lys Val Pro Glu Arg Thr Phe Thr Leu Cys  
165 170 175

Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Ile Gln Ser Lys Gly His  
180 185 190

Gly Lys Ala Val Asp Trp Trp Thr Met Gly Val Leu Leu Tyr Glu Phe  
195 200 205

Ile Ala Gly Tyr Pro Pro Phe Tyr Asp Asp Thr Pro Phe Arg Thr Tyr  
210 215 220

Glu Lys Ile Leu Ser Gly Arg Phe Lys Phe Pro Ser Trp Phe Asp Ala  
225 230 235 240

Arg Ala Arg Asp Leu Val Lys Gly Leu Leu Gln Thr Asp His Thr Lys  
245 250 255

Arg Asn Trp Glu Lys Leu Tyr Ala Arg Tyr Tyr Pro Ala Pro Ile Pro  
260 265 270

Val Lys Ala Lys Ser Pro Gly Asp Thr Ser Asn Phe Glu Arg Tyr Pro  
275 280 285

Glu Ser Gln Glu Asp Arg Ala Val Pro Leu Thr Ala Thr Gln Gln Ala  
290 295 300

Glu Phe Ile Gly Phe  
305

<210> 85  
<211> 1318  
<212> DNA  
<213> Trypanosoma cruzi

<400> 85  
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<210> 86  
 <211> 332  
 <212> PRT  
 <213> Leishmania major  
 <400> 86

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 35 40 45  
 Gln Glu Ile Leu Arg Met Lys Gln Val Asp His Val Met Ala Glu Ala  
 50 55 60  
 Ser Leu Leu Gln Glu Ile Asp His Pro Phe Ile Val Ser Met Leu Arg  
 65 70 75 80

Gly Tyr Met Asp Lys Asn Arg Leu Tyr Ile Leu Leu Glu Tyr Val Val  
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Gly Gly Glu Leu Phe Ser His Leu Arg Lys Ala Gly Lys Phe Pro Asn  
                     100                                    105                                    110

Asp Val Ser Lys Phe Tyr Cys Ala Glu Val Ile Leu Ala Phe Asp Tyr  
                     115                                    120                                    125

Leu His Asn Lys Thr Ile Val Tyr Arg Asp Leu Lys Pro Glu Asn Ile  
                     130                                    135                                    140

Leu Leu Asp Gln Asp Gly Asn Ile Lys Ile Thr Asp Phe Gly Phe Ala  
                     145                                    150                                    155                                    160

Lys Arg Val Thr Glu Arg Thr Phe Thr Leu Cys Gly Thr Pro Glu Tyr  
                     165                                    170                                    175

Leu Ala Pro Glu Ile Ile Gln Ser Lys Gly His Asn Lys Ala Val Asp  
                     180                                    185                                    190

Trp Trp Ala Leu Gly Ile Leu Leu Tyr Glu Met Leu Val Gly Tyr Pro  
                     195                                    200                                    205

Pro Phe Phe Asp Asp Ser Pro Met Lys Ile Tyr Glu Lys Ile Leu Val  
                     210                                    215                                    220

Gly Lys Val Leu Phe Pro Arg Trp Val Asp Ser Lys Ala Arg Asp Phe  
                     225                                    230                                    235                                    240

Ile Lys Gly Leu Leu Ser Leu Asp Pro Thr Lys Arg Leu Gly Asn Leu  
                     245                                    250                                    255

Pro Asn Gly Thr Glu Asp Ile Lys Asn His Lys Tyr Phe Ala Glu Val  
                     260                                    265                                    270

Asp Trp Asn Val Val Leu Ser Lys Lys Ile Pro Ala Pro Ile Pro Val  
                     275                                    280                                    285

Arg Gln His Lys Glu Gly Asp Thr His Tyr Phe Asp Lys Tyr Pro Asp  
                     290                                    295                                    300

Ser Pro Leu Asn Pro Leu Arg Thr Leu Thr Pro Ala Gln Gln Asp Cys  
                     305                                    310                                    315                                    320

Phe Ala Asn Phe Cys Asn Gly Gln Tyr Thr Asp Glu  
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<210> 87  
 <211> 3461  
 <212> DNA

&lt;213&gt; Leishmania major

&lt;400&gt; 87

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&lt;210&gt; 88

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Giardia intestinalis

&lt;400&gt; 88

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Leu Arg His Ile Lys Asn Ile Gly Ser Gly Ser Phe Gly Arg Val Thr
          20          25          30

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Leu Ala Gln His Ile Asp Thr Gly Lys Tyr Tyr Ala Val Lys Ala Met  
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Ser Lys Arg Lys Ile Ile Ala Leu Arg Gln Val Ala His Ile Asn Asn  
 50 55 60

Glu Cys Ser Ile Leu Arg Val Val Arg Ser Pro Phe Ile Ile Arg Gln  
 65 70 75 80

Tyr Gly Thr Tyr Gln Asp Asp Lys Asn Val Tyr Ile Ile Leu Asp Phe  
 85 90 95

Ile Gln Gly Gly Glu Leu Phe Tyr His Leu Arg Arg Tyr Asn Lys Phe  
 100 105 110

Pro Leu Gln Val Val Lys Phe Phe Ala Val Glu Ile Leu Leu Ala Leu  
 115 120 125

Gly Tyr Leu His Asn Leu Gly Ile Ala Tyr Arg Asp Leu Lys Leu Glu  
 130 135 140

Asn Val Leu Val Asp Asn Thr Gly His Ile Lys Leu Ala Asp Leu Gly  
 145 150 155 160

Phe Ala Lys Arg Leu Val Glu Lys Asn Ala Asp Gly Asp Thr Val Ser  
 165 170 175

Gln Leu Thr Phe Ser Ile Val Gly Thr Pro Glu Tyr Leu Ala Pro Glu  
 180 185 190

Ile Ile Arg Ser Thr Gly His Asp Met Ser Ala Asp Trp Trp Ala Phe  
 195 200 205

Gly Val Leu Ile Tyr Glu Met Leu Thr Gly Ser Pro Pro Phe Phe Asp  
 210 215 220

Asp Asn Pro Asp Met Thr Cys Lys Lys Ile Leu Gly Gly Lys Ile Thr  
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Phe Ala Ser Gly Phe Asp Lys Ala Ala Lys Asp Leu Ile Ile Arg Leu  
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Leu Asn Pro Asp Lys Thr Arg Arg Leu Gly Ala Ser Ile Asn Asn Gly  
 260 265 270

Thr Ala Asp Ile Met Lys His Ala Phe Phe Ser Gly Val Asn Cys Leu  
 275 280 285

Gly Leu Arg Lys Lys Ser Gly Arg His Pro Ile Val Pro Lys Leu Thr  
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Asp Pro Ala Asp Thr Ala Asn Tyr Glu Asp Tyr Leu Asp Glu Asn Gly  
 305 310 315 320

Asn Phe Glu Glu Asp Glu Ile Asp Tyr Glu Asn Leu Arg Ser Asp Ala  
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Ala Leu Phe Val Gly Phe Lys  
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<210> 89

<211> 1307

<212> DNA

<213> Giardia intestinalis

<400> 89

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 <213> *Trichinella spiralis*

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 cgggtggaaa atgtgtcaaa gaatttgctg atttttgaat ttatagactc gccgtggatt 240  
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<210> 91  
 <211> 351  
 <212> PRT  
 <213> *Homo sapiens*

<400> 91

Met Gly Asn Ala Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val  
 1 5 10 15

Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu  
 20 25 30

Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys  
 35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys  
 50 55 60

Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
65 70 75 80

Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
85 90 95

Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys  
100 105 110

Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu  
115 120 125

Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala  
130 135 140

Arg Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser  
145 150 155 160

Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp  
165 170 175

Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val  
180 185 190

Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro  
195 200 205

Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala  
210 215 220

Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe  
225 230 235 240

Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val  
245 250 255

Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn  
260 265 270

Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly  
275 280 285

Val Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Asp Trp Ile  
290 295 300

Ala Ile Tyr Gln Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Phe Lys  
305 310 315 320

Gly Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Glu Ile  
325 330 335



Arg Val Ser Ile Asn Glu Lys Cys Gly Lys Glu Phe Ser Glu Phe  
 340 345 350

<210> 92  
 <211> 2685  
 <212> DNA  
 <213> Homo sapiens

<400> 92  
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 cgctccgggg ccgccggccc cagccagcac ccgccgcgcc gcagctccgg gaccggcccc 180  
 ggccgccgcc gccgcgatgg gcaacgccgc cgccgccaaag aagggcagcg agcaggagag 240  
 cgtgaaagaa ttcttagcca aagccaaaga agattttctt aaaaaatggg aaagtcccg 300  
 tcagaacaca gccacttgg atcagtttga acgaatcaag accctcggca cgggctcctt 360  
 cgggcccgtg atgctggtga aacacaagga gaccgggaac cactatgcca tgaagatcct 420  
 cgacaaacag aaggtggtga aactgaaaca gatcgaacac accctgaatg aaaagcgc 480  
 cctgcaagct gtcaactttc cgttcctcgt caaactcgag ttctccttca aggacaactc 540  
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 tgaccagcag ggctacattc aggtgacaga cttcgggtttc gccaaagcgc tgaagggccc 780  
 cacttggaac ttgtgcggca cccctgagta cctggcccct gagattatcc tgagcaaagg 840  
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 ctaccgcgcc ttcttcgcag accagcccat ccagatctat gagaagatcg tctctgggaa 960  
 ggtgcgcttc cttccact tcagctctga cttgaaggac ctgctgcgga acctcctgca 1020  
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 caagtggttt gccacaactg actggattgc catctaccag aggaaggtgg aagctccctt 1140  
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 aatccgggtc tccatcaatg agaagtgtgg caaggagttt tctgagtttt aggggcatgc 1260  
 ctgtgcccc atgggttttc ttttttctt tttctttttt ttggtcgggg ggggtggagg 1320  
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 ccctccaggg ttagggggag caggaagccc agataatcag agggacagaa acaccagctg 1440  
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 acagccccc agccctcag cctcccagc ccacttctgc ctgttttaaa cgagtttctc 1560  
 aactccagtc agaccaggtc ttgctggtgt atccaggac agggatatgga aagaggggct 1620  
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gatttttagt gacatgttca gtgggttgct tgctagaatt tttttaaaaa aacaacaatt 1800  
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 gccaaagagg agtcatcccc caaaaagaca gaggggggagc cccaagccca agtctttcct 2160  
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 ggagccgctg gggagccacc ccattcatcc ccgtatttcc ccctctcata acttctcccc 2520  
 atcccaggag gagttctcag gcctggggtg gggccccggg tgggtgcggg ggcgattcaa 2580  
 cctgtgtgct gcgaaggacg agacttcctc ttgaacagtg tgctgttgta aacatatttg 2640  
 aaaactatta ccaataaagt tttgtttaa aaaaaaaaaa aaaaa 2685

<210> 93  
 <211> 7  
 <212> PRT  
 <213> Mus musculus

<400> 93

Met Ala Ser Ser Ser Asn Asp  
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<210> 94  
 <211> 912  
 <212> DNA  
 <213> Mus musculus

<400> 94  
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 cccaccctat cactccctgg ctccctctac aggcagggtc cccccccagg actggcagcc 180  
 aaactgctgc agcagatctt atgaggcttc cgagccaccg taatgctagt gccctgagaa 240  
 agactgagtg atggcttcca gctccaacga tggtagggtc gagccctggt gttatagcaa 300  
 cttcctagac actgtctgcc ccttaagtca gggaggggct gtgatggggg ctgaggggag 360  
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 aatcctgggc tagaaaacct gaggaagaag aacaggggga tgaatgggtcc atttcagacc 480  
 aaagcagatg gtctaccggg agtagggctc cagctgggac aggggatgga gtagtcccac 540

ccagcttttg gattcagacc agaagaaaga taggtccacc ttagacctgg gtacagtaga 600  
 gtttgcttga taccctgaac cctgcctgga gatagagggg acctagtgtt ggggggggtcc 660  
 ccctcaaact ggggggtatag tgcagtacac tcttgccctgc tgctgtgacc ccatactctga 720  
 atccaaggtg atttccatgt cttgccctgg cactggcttt cctagaggtg tctggagttt 780  
 tcgtagcaca tcaaattccag agagtggagg ccaatagcac cctttccttt caaatgagag 840  
 acatgggctc taccggctag cagcttaggc tctcctctct gtccacttcc tgttgggtggc 900  
 aggcgtccat gg 912

<210> 95  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 95

Met Ala Ser Asn Ser Ser Asp Val Lys Glu Phe Leu Ala Lys Ala Lys  
 1 5 10 15

Glu Asp Phe Leu Lys Lys Trp Glu Ser Pro Ala Gln Asn Thr Ala  
 20 25 30

<210> 96  
 <211> 120  
 <212> DNA  
 <213> Homo sapiens

<400> 96  
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 agccaaagcc aaagaagatt ttcttaaaaa atgggaaagt cccgctcaga acacagccca 120

<210> 97  
 <211> 472  
 <212> PRT  
 <213> Blumeria graminis

<400> 97

Met Pro Thr Phe Gly Phe Leu Lys Lys Arg Lys Lys Val Ser Leu Gly  
 1 5 10 15

His Arg Asp Leu Asp Ser Pro Ala Ser Thr Leu Ser Gln Pro Ala Ser  
 20 25 30

Pro Ile Thr Pro Ser Thr Ser Arg Gly Leu Gly Glu Pro Ile Asp Thr  
 35 40 45

Thr Ser Ser Lys Ile Thr Ser Pro Gly Gln Lys Leu Gly Ser Asn Ile  
 50 55 60

Thr Lys Asp His Arg Gly Thr Arg Thr Thr Val Glu Asp Leu Pro Ser  
 65 70 75 80

Met Thr Asp Val Ser His Leu Gln Gln Ala Tyr Arg Asn Leu Ser Gln  
                             85                            90                            95

Gly Ser Thr Ala Ser Lys Ser Asn Leu Leu Thr Ile His Asn Leu Ile  
                             100                            105                            110

Asn Pro Pro Gln His Asp Gly Ala Gly Gln Ser Lys Val Met Pro Glu  
                             115                            120                            125

Lys His Met Asn Asn Lys Thr Glu Arg Pro Val Gln Gly Lys Ala Ala  
                             130                            135                            140

Val Ala Gln Val Arg Gln Thr Lys Gly Lys Tyr Ser Leu Ser Asp Phe  
                             145                            150                            155                            160

Glu Ile Leu Arg Thr Leu Gly Thr Gly Ser Phe Gly Arg Val His Leu  
                             165                            170                            175

Val Gln Ser Lys His Asn Gln Arg Phe Tyr Ala Val Lys Val Leu Lys  
                             180                            185                            190

Lys Gln Gln Val Val Lys Met Lys Gln Val Glu His Thr Asn Asp Glu  
                             195                            200                            205

Arg Ser Met Leu Gln Glu Val Lys His Pro Phe Leu Ile Thr Leu Trp  
                             210                            215                            220

Gly Thr Phe Gln Asp Ser Lys Asn Leu Tyr Met Val Met Asp Phe Val  
                             225                            230                            235                            240

Glu Gly Gly Glu Leu Phe Ser Leu Leu Arg Lys Ser Gln Arg Phe Pro  
                             245                            250                            255

Asn Pro Val Ala Lys Phe Tyr Ala Ala Glu Val Thr Leu Ala Leu Glu  
                             260                            265                            270

Tyr Leu His Lys Lys Asp Ile Ile Tyr Arg Asp Leu Lys Pro Glu Asn  
                             275                            280                            285

Leu Leu Leu Asp Arg His Gly His Leu Lys Ile Thr Asp Phe Gly Phe  
                             290                            295                            300

Ala Lys Lys Val Thr Asp Ile Thr Trp Thr Leu Cys Gly Thr Pro Asp  
                             305                            310                            315                            320

Tyr Leu Ala Pro Glu Val Val Ser Ser Lys Gly Tyr Asn Lys Ser Val  
                             325                            330                            335

Asp Trp Arg Trp Ser Leu Gly Ile Leu Ile Phe Glu Met Leu Cys Gly  
                             340                            345                            350

Tyr Thr Pro Phe Trp Asp Asn Gly Ser Pro Met Lys Ile Tyr Glu Asn  
355 360 365

Ile Leu Lys Gly Arg Val Lys Tyr Pro Pro Tyr Ile His Pro Asp Ala  
370 375 380

Gln Asp Leu Ile Gln Arg Leu Ile Thr Ala Asp Leu Thr Lys Arg Leu  
385 390 395 400

Gly Asn Leu His Gly Gly Ala Glu Gly Ile Lys Ser His Gln Trp Phe  
405 410 415

Ala Glu Val Thr Trp Glu Arg Leu Ala Lys Lys Asp Ile Asp Ala Pro  
420 425 430

Tyr Val Pro Pro Val Lys Ala Gly Ser Gly Asp Ala Ser Gln Phe Asp  
435 440 445

Lys Tyr Pro Glu Glu Thr Glu Arg Tyr Gly Gln Thr Gly Pro Asp Glu  
450 455 460

His Gly Ser Leu Phe Glu Asn Phe  
465 470

<210> 98  
<211> 1573  
<212> DNA  
<213> Blumeria graminis

<400> 98  
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gggtctcggtg aaccattga tacaacttca tcgaaaatca cgtcgcttg ccaaaaactc 180  
ggttctaaca tcacaaaaga tcatcgggga acacgaacta ctgtggagga tttaccttcg 240  
atgacagacg tatcacatct ccaacaagct taccgaaact tatcacaggg atctacagca 300  
agtaaaagca accttctaac cattcataac ctcatcaatc cccgcgagca cgacggggca 360  
ggtcagtcaa aagtcatgcc agaaaaacac atgaacaata aaaccgaacg cccagttcag 420  
ggcaaagcag cagtggctca agtcagacag actaagggga agtactcgtt gagcgatttt 480  
gaaatattgc gtactcttgg gacaggtagt ttcggtaggg ttcattctgt tcaatcaaag 540  
cataatcaaa ggttttacgc cgtgaaagta ttgaaaaagc agcaagtagt aaaaatgaag 600  
caagtagagc atacaaatga cgaacgaagt atgttacaag aagtcaagca tcctttcctg 660  
ataactttat ggggaacttt ccaagattca aaaaatctat atatggttat ggatttcgtc 720  
gaagggtggcg aactcttttc tctattgcca aaatcgcagg tataataaca accctcagat 780  
tctatggaag tatctgctaa ttttccaagc gattcccaaa tccagtggcc aagttttacg 840  
ccgctgaagt cacattagct ctgcaatacc tgcacaaaaa agacattatt tatcgagatt 900

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tgaagccgga gaatttactt ctcgatcgtc acggacatct aaagattact gatttttgggt      960
ttgcaaagaa ggtaactgat atcacatgga cactctgtgg tacaccagat tacttagcgc      1020
ctgaagtggg ttcgagtaaa ggctataata aatcagtcga ttggtgagtc ccactttaag      1080
aaacaaaaaac gctccgtcta atatatacat gaggtggctg ctaggcataat taatattcga      1140
aatgctttgt ggctatacgc ctttctggga taatggctca ccaatgaaaa tttatgaaaa      1200
tattctcaag ggtcgcgtca agtaccctcc atatattcac ccagatgcac aagatctcat      1260
tcaacgactt ataactgccg atcttaccaa gcgggttagga aatctacatg gtggtgctga      1320
aggaattaaa agccaccagt ggtttgctga agtaacctgg gaaagattag cgaaaaaaga      1380
catagatgca ccatatgtgc caccggtaaa ggcagggtct ggtgatgcaa gtcagtttga      1440
caaatatcct gaagagacgg aacgggtacgg gcagacagga ccagacgaag ttttgttccc      1500
cgtaaatacac aacagcttat atttgggttt actgacaaaag cttagacacg gaagcttggt      1560
tgaaaacttc tga                                     1573

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<210> 99
<211> 360
<212> PRT
<213> Homo sapiens

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<400> 99

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Met Ala Ala Pro Ala Ala Ala Thr Ala Met Gly Asn Ala Pro Ala Lys
1          5          10          15

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```

Lys Asp Thr Glu Gln Glu Glu Ser Val Asn Glu Phe Leu Ala Lys Ala
          20          25          30

```

```

Arg Gly Asp Phe Leu Tyr Arg Trp Gly Asn Pro Ala Gln Asn Thr Ala
          35          40          45

```

```

Ser Ser Asp Gln Phe Glu Arg Leu Arg Thr Leu Gly Met Gly Ser Phe
          50          55          60

```

```

Gly Arg Val Met Leu Val Arg His Gln Glu Thr Gly Gly His Tyr Ala
65          70          75          80

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```

Met Lys Ile Leu Asn Lys Gln Lys Val Val Lys Met Lys Gln Val Glu
          85          90          95

```

```

His Ile Leu Asn Glu Lys Arg Ile Leu Gln Ala Ile Asp Phe Pro Phe
          100          105          110

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```

Leu Val Lys Leu Gln Phe Ser Phe Lys Asp Asn Ser Tyr Leu Tyr Leu
          115          120          125

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Val Met Glu Tyr Val Pro Gly Gly Glu Met Phe Ser Arg Leu Gln Arg
          130          135          140

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Val Gly Arg Phe Ser Glu Pro His Ala Cys Phe Tyr Ala Ala Gln Val  
145 150 155 160

Val Leu Ala Val Gln Tyr Leu His Ser Leu Asp Leu Ile His Arg Asp  
165 170 175

Leu Lys Pro Glu Asn Leu Leu Ile Asp Gln Gln Gly Tyr Leu Gln Val  
180 185 190

Thr Asp Phe Gly Phe Ala Lys Arg Val Lys Gly Arg Thr Trp Thr Leu  
195 200 205

Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Ile Ile Leu Ser Lys Gly  
210 215 220

Tyr Asn Lys Ala Val Asp Trp Trp Ala Leu Gly Val Leu Ile Tyr Glu  
225 230 235 240

Met Ala Val Gly Phe Pro Pro Phe Tyr Ala Asp Gln Pro Ile Gln Ile  
245 250 255

Tyr Glu Lys Ile Val Ser Gly Arg Val Arg Phe Pro Ser Lys Leu Ser  
260 265 270

Ser Asp Leu Lys Asp Leu Leu Arg Ser Leu Leu Gln Val Asp Leu Thr  
275 280 285

Lys Arg Phe Gly Asn Leu Arg Asn Gly Val Gly Asp Ile Lys Asn His  
290 295 300

Lys Trp Phe Ala Thr Thr Ser Trp Ile Ala Ile Tyr Glu Lys Lys Val  
305 310 315 320

Glu Ala Pro Phe Ile Pro Lys Tyr Thr Gly Pro Gly Asp Ala Ser Asn  
325 330 335

Phe Asp Asp Tyr Glu Glu Glu Glu Leu Arg Ile Ser Ile Asn Glu Lys  
340 345 350

Cys Ala Lys Glu Phe Ser Glu Phe  
355 360

<210> 100

<211> 1635

<212> DNA

<213> Homo sapiens

<400> 100

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cgccccgcc aagaaggaca ccgagcagga ggagagcgtg aacgagttcc tagccaaagc 120

cagaggagat ttcctctaca gatggggaaa ccccgctcaa aacaccgcca gctcggatca 180  
 gttcgaacgg ctcaggacgc tgggcatggg ctccttcggg cgggtgatgc tggtgaggca 240  
 ccaggagacc ggcggccact acgccatgaa gatcctcaac aagcagaagg tggatgaagat 300  
 gaagcaggtc gagcacatac tgaacgagaa ggcgcatcctg caggcgatcg actttccggt 360  
 cctcgtcaag ctccagttct cctttaagga caactcctac ctgtacctgg tgatggagta 420  
 cgtgccgggt ggggagatgt tctccgcct acagcgctc ggaagggtta gcgagcccca 480  
 tgccgtgttc tatgccgcc aggtcgtcct ggccgtccag tacctacact cgctcgacct 540  
 catccaccgc gacctgaagc ccgagaatct cctcatcgac cagcagggct acctgcagg 600  
 gacggacttc ggtttcgcca agcgcgtgaa gggccgcact tggacctgt gcgggacccc 660  
 agagtacctg gccccgaga tcatcctgag caaaggctac aacaaggccg tggactggtg 720  
 ggccctaggg gtgctcatct atgagatggc cgtgggcttc ccacccttct acgccgacca 780  
 gcccatccag atctacgaga agatcgtctc tgggaggggtg cggtttccct ccaaactcag 840  
 ctctgacctc aaggatctgc tgcggagcct gctgcagggtg gacctacca agcgcttcgg 900  
 aaacctcagg aacgggggtg gcgacatcaa gaaccacaag tggttcgcca caaccagctg 960  
 gatcgccatc tatgagaaga aggtggaagc tcccttcac cgaagtaca caggccctgg 1020  
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 agttccttgt atctaatttc atcctcacc acctccaggg ttgggggagc aggaagccca 1260  
 gatatttgga ggaacagaaa caccagctgc tccctcacc ccccccacgc cttcctggtc 1320  
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 ggatgaatga aaagcacacc taccctttgg cgtaatcctg cctgggaagg agagaggttt 1560  
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 tcttatttaa gttcc 1635

<210> 101  
 <211> 337  
 <212> PRT  
 <213> Ascaris suum

<400> 101

Met Glu Asn Arg Glu Gln Glu Glu Ile Glu Pro Cys Val Ser Ile Thr  
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Ile Asp Pro Asn Asn Asn Lys Leu Asn Val Asp Asp Phe Asp Arg Ile  
 20 25 30



Cys Thr Ile Gly Thr Gly Ser Phe Gly Arg Val Tyr Leu Val Gln His  
 35 40 45  
 Arg Ala Ser Glu Gln Tyr Phe Ala Leu Lys Lys Met Ala Ile Arg Glu  
 50 55 60  
 Val Val Ser Met Arg Gln Thr Glu His Val His Ser Glu Lys Arg Leu  
 65 70 75 80  
 Leu Ser Arg Leu Ser His Pro Phe Ile Val Lys Met Tyr Cys Ala Ser  
 85 90 95  
 Trp Asp Lys Tyr Asn Leu Tyr Met Leu Phe Glu Tyr Leu Ala Gly Gly  
 100 105 110  
 Glu Leu Phe Ser Tyr Leu Arg Ala Ser Arg Thr Phe Ser Asn Ser Met  
 115 120 125  
 Ala Arg Phe Tyr Ala Ala Glu Ile Val Cys Ala Leu Gln Tyr Leu His  
 130 135 140  
 Ser Lys Asn Ile Ala Tyr Arg Asp Leu Lys Pro Glu Asn Leu Met Leu  
 145 150 155 160  
 Asn Lys Glu Gly His Leu Lys Met Thr Asp Phe Gly Phe Ala Lys Glu  
 165 170 175  
 Val Ile Asp Arg Thr Trp Thr Met Cys Gly Thr Pro Glu Tyr Leu Ala  
 180 185 190  
 Pro Glu Val Ile Gly Asn Lys Gly His Asp Thr Ala Val Asp Trp Trp  
 195 200 205  
 Ser Leu Gly Val Leu Ile Tyr Glu Met Met Ile Gly Ile Pro Pro Phe  
 210 215 220  
 Arg Gly Lys Thr Leu Asp Glu Ile Tyr Glu Lys Ile Ile Leu Gly Lys  
 225 230 235 240  
 Leu Arg Phe Thr Arg Ser Phe Asp Leu Phe Ala Lys Asp Leu Val Lys  
 245 250 255  
 Lys Leu Leu Gln Val Asp Arg Thr Gln Arg Leu Gly Asn Gln Lys Asp  
 260 265 270  
 Gly Ala Ala Asp Val Met Asn His Lys Trp Phe Thr Asp Ile Asp Trp  
 275 280 285  
 Asp Asp Val Gln Asn Met Lys Leu Thr Pro Pro Ile Ile Pro Thr Leu  
 290 295 300

Tyr Ser Asn Gly Asp Thr Gly Asn Phe Asp Ser Tyr Asp Glu Cys Ser  
 305 310 315 320

Asp Asp Glu Ile Ala Ala Pro Gln His Glu Leu Glu Leu Phe Glu Asp  
 325 330 335

Trp

<210> 102  
 <211> 1336  
 <212> DNA  
 <213> *Ascaris suum*

<400> 102  
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 atcatatcgg tgaattgtaa ttctcggcaa tggagaatcg agaacaagaa gaaattgaac 180  
 catgtgtttc aatcactatc gatccaaaca ataacaaact taacgtcgat gattttgatc 240  
 gtatttgac tatcggaaac ggatcgtttg gtcgagtata tcttggtgcag catcgtgctt 300  
 ctgagcaata ttttgcgctt aagaaaatgg ccattcgaga ggtggtctcg atgcgtcaaa 360  
 ccgagcatgt cactccgag aagagactgc tgcgcgtctt tcccatccc ttcacgttta 420  
 aaatgtattg cgcttcgtgg gacaaatata atctctacat gctattcgag tatctagcag 480  
 gtggagagct gttctcatac ttgcgtgcct cggaacttt ctcgaactca atggctcgctt 540  
 tctacgcagc tgaaattgtc tgcgcacttc aatacttaca ctcgaaaaat atcgcttatac 600  
 gtgatttgaa accggaaaat ttaatgctaa ataaagaggg acatctcaaa atgactgatt 660  
 tcggtttcgc aaaagaagtt attgacagaa catggacaat gtgtggtact ccggagtact 720  
 tagcacctga ggtgatcggc aataaaggac acgatacagc ggtcgattgg tggtcattgg 780  
 gtgttctcat ctatgagatg atgatcggta taccaccgtt tcgtggtaaa actcttgacg 840  
 agatctacga aaaaatcatt ttgggcaaac ttcgcttcac tcgctcgttt gattttatttg 900  
 ctaaggatct tgtgaagaag ttgctacaag tggatcgta acaacgatta ggggaatcaga 960  
 aggatggtgc agctgatgta atgaatcata aatggttcac cgatatcgat tgggatgatg 1020  
 tacaaaatat gaagcttacc cctccaatca ttccgacatt atattcaaac ggagatacgg 1080  
 gcaatttcga ttcttatgat gaatgcagcg atgatgaaat tgcagcacct caacatgagc 1140  
 tcgaactatt cgaagactgg tgatacattg tatatgtgct gtgtgtgcat tatgtatgta 1200  
 tatatatcca ctccctgtcg cactcattaa ccatctttta gaaattatgt tctcatcaca 1260  
 ttgtgttctt atttacacca acaaataaca tgcgcatgcg catgttcgag tactgctaaa 1320  
 aattttgtgt agaccc 1336

<210> 103  
 <211> 334  
 <212> PRT

&lt;213&gt; Rattus norvegicus

&lt;400&gt; 103

Glu Phe Leu Ser Lys Ala Lys Glu Asp Phe Leu Arg Lys Trp Glu Asn  
 1 5 10 15  
 Pro Pro Pro Ser Asn Ala Gly Leu Glu Asp Phe Glu Arg Lys Lys Thr  
 20 25 30  
 Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys Ala  
 35 40 45  
 Thr Glu Gln Tyr Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val Val  
 50 55 60  
 Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu Gln  
 65 70 75 80  
 Ala Val Glu Phe Pro Phe Leu Val Gly Leu Glu Tyr Ser Phe Lys Asp  
 85 90 95  
 Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu Met  
 100 105 110  
 Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala Arg  
 115 120 125  
 Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser Leu  
 130 135 140  
 Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp His  
 145 150 155 160  
 Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val Lys  
 165 170 175  
 Gly Arg Thr Trp Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu  
 180 185 190  
 Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala Leu  
 195 200 205  
 Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe Ala  
 210 215 220  
 Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ala Gly Lys Val Arg  
 225 230 235 240  
 Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn Leu  
 245 250 255

Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asp Gly Val  
 260 265 270

Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Glu Trp Ile Ala  
 275 280 285

Ile Tyr Pro Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Phe Lys Gly  
 290 295 300

Phe Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Glu Ile Arg  
 305 310 315 320

Val Arg Ile Thr Glu Lys Cys Gly Lys Glu Phe Ser Glu Phe  
 325 330

<210> 104  
 <211> 1002  
 <212> DNA  
 <213> Rattus norvegicus

<400> 104  
 gaattcctat ccaaagccaa agaagacttt ctgaggaaat gggagaaccc tcccccgagt 60  
 aatgctgggc ttgaggattt tgaaaggaaa aaaaccttgg gaacgggttc cttcggaaga 120  
 gtcattgctgg taaagcataa ggccactgag cagtactacg ccatgaagat cttagacaag 180  
 cagaaggctcg ttaagctaaa gcaaataagag cacactctga atgagaagag aatcctgcag 240  
 gcagtggagt tcccgttcct tggtgggctg gagtattctt ttaaggataa ttctaattta 300  
 tacatgggta tggaatacgt tcctgggggg gaaatgtttt cacatctaag aagaattgga 360  
 aggttcagtg aaccccatgc tcgtttctat gcagctcaga tcgtgctaac atttgagtac 420  
 ctccattccc tcgacctcat ctacagagat ctcaagccgg aaaacctctt aattgaccac 480  
 cagggttaca tccaggtcac agattttggg ttcgccaaga gagtcaaggg caggacttgg 540  
 acattctgtg gcaccccaga gtacctggcc ccagagatca tcctcagcaa gggttacaat 600  
 aaggcagtg actggtgggc attgggtgta ctgatctacg agatggctgc tggctacccc 660  
 ccgttctttg ctgaccagcc aattcagatt tatgagaaga ttgttgccgg aaaggtccgc 720  
 ttcccgtcgc acttcagttc cgatctcaag gaccttctgc ggaatctgct gcaggtggat 780  
 ctaccaagc gctttggaaa ccttaaggac ggggttaatg acatcaaaaa ccacaagtgg 840  
 tttgctacta ccgaatggat cgcgatttac ccgagaaagg ttgaggctcc tttcatacca 900  
 aaattcaaag gctttggcga tacatctaac ttcgatgact atgaagaaga agagatccga 960  
 gtccgtataa cagaaaaatg tggaaggag ttttctgaat tt 1002

<210> 105  
 <211> 207  
 <212> PRT  
 <213> Homo sapiens

<400> 105

Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu Ser  
1 5 10 15

Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys Thr  
20 25 30

Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys Glu  
35 40 45

Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val Val  
50 55 60

Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu Gln  
65 70 75 80

Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys Asp  
85 90 95

Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu Met  
100 105 110

Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala Arg  
115 120 125

Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser Leu  
130 135 140

Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp Gln  
145 150 155 160

Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val Lys  
165 170 175

Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu  
180 185 190

Ile Ile Leu Ser Lys Val Gly Ala Ser Pro Ala Leu Pro Phe Pro  
195 200 205

<210> 106

<211> 936

<212> DNA

<213> Homo sapiens

<400> 106

gaattcttag ccaaagccaa agaagatttt cttaaaaaat gggaaagtcc cgctcagaac 60

acagcccact tggatcagtt tgaacgaatc aagaccctcg gcacgggctc cttcgggagg 120

gtgatgctgg tgaaacacaa ggagaccggg aaccactatg ccatgaagat cctcgacaaa 180

cagaaggtgg tgaaactgaa acagatcgaa cacaccctga atgaaaagcg catcctgcaa 240

gctgtcaact ttccgttcct cgtcaaactc gagttctcct tcaaggacaa ctcaaactta 300

tacatgggtca tggagtacgt gcccgggcggg gagatgttct cacacctacg gcggatcgga 360

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aggttcagtg agccccatgc ccgtttctac gcgggccaga tcgtcctgac ctttgagtat      420
ctgcactcgc tggatctcat ctacagggac ctgaagccgg agaatctgct cattgaccag      480
cagggctaca ttcaggtgac agacttcggt ttcgccaagc gcgtgaaggg ccgcacttgg      540
accttgtgcg gcacccctga gtacctggcc cctgagatta tcctgagcaa agtaggagcc      600
tccccagccc tccccttccc ctgaggccgg ctctgctctc ctgctctcgc ctctcctca      660
ccctgtgccc ccccatcttg ctccagggtc acaacaaggc cgtggactgg tgggccctgg      720
gggttcttat ctatgaaatg gccgctggct acccgccctt ctctgcagac cagcccatcc      780
agatctatga gaagatcgtc tctgggaagg tgaggtccgg atgtgggaca cagccctgga      840
agaaacagac cgttccctgc tcacccatcc tattccctgg ggagccctgc ttgttgtcag      900
aataatctag aagttcctta aaaaaaaaaa aaaaaa                                936

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<210> 107  
 <211> 377  
 <212> DNA  
 <213> *Aplysia californica*

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<400> 107
tacgcactgg aaaataattc agctgtcaaa tatctgttac tatcgtgtta cagccaaaag      60
ctcgttttaa ttgtcatttt tcaaattcatt ttaggatttt gaaattgttt ttattcattt      120
tgagttcagg aagaatgtaa tgaaatatca ctaccgggaa cgaccgtgtt tcttgcatgg      180
attcggtaat aaacatttct cagttctgag agaagagggtg ttagtattgt ttgtggcttt      240
cgtgttgctg gcgtggacta ggattcttat cgggattaca cttctgtttt tcaaactaac      300
gggattatct gctcagcacc tgtttgtgca gtcaaacact atcagattgg aggtgcagta      360
gcagttacac tcaggat                                         377

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<210> 108  
 <211> 67  
 <212> PRT  
 <213> *Aplysia californica*

<400> 108

Met Ala Asp Ile Ile His Lys Leu Phe Gly Gln Lys His Gly Lys His  
 1 5 10 15

Ser Asp Gln Gly Ala Lys Ser Ser Asp Gly Glu Gly Tyr Thr Lys Gln  
 20 25 30

Gln His Glu Phe Phe Lys Glu Phe Leu Ala Arg Ala Lys Glu Glu Phe  
 35 40 45

Gln Asn Lys Trp Asp His Pro Pro Ala Ser Thr Ser Cys Leu Asp Asp  
 50 55 60

Phe Asp Arg  
 65

<210> 109  
 <211> 343  
 <212> DNA  
 <213> *Aplysia californica*

<400> 109  
 ctgcagcaac aacaactgct acaacaacaa cgtgttcaaa cgtttcggag gattattcac 60  
 taccgacacg gaggaagcaa ctgcgccgtt gattggattt gaaccccgaa cttttcagaa 120  
 tcgggggtggt tgagcgaccg aaatggctga tattattcac aagttgttcg gtcagaaaca 180  
 tggaaagcat tcggatcagg gagccaagtc gtctgatgga gaaggctaca ccaaacagca 240  
 gcacgagttc ttcaaagaat tcttgccag agccaaagag gaatttcaga acaaattggga 300  
 tcacccacca gcaagcacat catgcttaga cgacttcgac aga 343

<210> 110  
 <211> 351  
 <212> PRT  
 <213> *Mus musculus*

<400> 110  
 Met Gly Asn Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val  
 1 5 10 15  
 Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu  
 20 25 30  
 Thr Pro Ser Gln Asn Thr Ala Gln Leu Asp Gln Phe Asp Arg Ile Lys  
 35 40 45  
 Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys  
 50 55 60  
 Glu Ser Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
 65 70 75 80  
 Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
 85 90 95  
 Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys  
 100 105 110  
 Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Ala Gly Gly Glu  
 115 120 125  
 Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala  
 130 135 140  
 Arg Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser  
 145 150 155 160

Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp  
165 170 175

Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val  
180 185 190

Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro  
195 200 205

Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala  
210 215 220

Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe  
225 230 235 240

Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val  
245 250 255

Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn  
260 265 270

Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly  
275 285

Val Asn Asp Ile Lys Asn His Lys Trp Phe Ala Thr Thr Asp Trp Ile  
290 295 300

Ala Ile Tyr Gln Arg Lys Val Glu Ala Pro Phe Ile Pro Lys Phe Lys  
305 310 315 320

Gly Pro Gly Asp Thr Ser Asn Phe Asp Asp Tyr Glu Glu Glu Glu Ile  
325 330 335

Arg Val Ser Ile Asn Glu Lys Cys Gly Lys Glu Phe Thr Glu Phe  
340 345 350

<210> 111  
<211> 2292  
<212> DNA  
<213> Mus musculus

<400> 111  
cttgggctga ggctcccccg cgggcgggcg cagagagacg cgggaagcag gggctgggcg 60  
ggggctcgtgg cgccgcagcc agcgcagcca gcccaggagg ccgccgcctc cgctgcccag 120  
cgcgctccgg ggccgcccgc caccttagca cccgccgcgt cgcagctccg ggactggccc 180  
cgcccgcgac gccgccgcca tgggcaacgc cgccgccgcc aagaagggca gcgagcagga 240  
gagcgtgaaa gagttcctag ccaaagccaa ggaagatttc ctgaaaaaat gggagacccc 300  
ttctcagaat acagcccagt tggatcagtt tgatagaatc aagacccttg gcaccggctc 360  
ctttgggcca gtgatgctgg tgaagcacia ggagagtggg aaccactacg ccatgaagat 420



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cttagacaag cagaagggtgg tgaagctaaa gcagatcgag cacactctga atgagaagcg      480
catcctgcag gccgtcaact tcccgttcct ggtcaaactt gaattctcct tcaaggacaa      540
ctcaaacctg tacatggtca tggagtatgt agctgggtggc gagatgttct cccacctacg      600
gcggtattgga aggttcagcg agcccatgc ccgtttctac gcggcgcgaga tcgtcctgac      660
ctttgagtat ctgcactccc tggacctcat ctaccgggac ctgaagcccg agaattctct      720
catcgaccag cagggctata ttcagggtgac agacttcggt tttgccaagc gtgtgaaagg      780
ccgtacttgg accttgtgtg ggaccctga gtacttggcc cccgagatta tcctgagcaa      840
aggctacaac aaggctgtgg actgggtgggc tctcggagtc ctcatctacg agatggctgc      900
tggttacctc cccttcttcg ctgaccagcc tatccagatc tatgagaaaa tcgtctctgg      960
gaagggtggg tttccatccc acttcagctc tgacttgaag gacctgctgc ggaaccttct      1020
gcagggtgat ctcaccaagc gctttgggaa cctcaagaac ggggtcaatg acatcaagaa      1080
ccacaagtgg tttgccacga ctgactggat tgccatctat cagagaaaagg tggaagctcc      1140
cttcatacca aagttaaag gccctgggga caccagtaac tttgacgact atgaggagga      1200
agagatccgg gtctccatca atgagaagtg tggcaaggag tttactgagt tttaggggtg      1260
tgcttgtgcc ccttgggttc tctttcattt tttctttttt tttctatttt ttttccggtt      1320
gggggtggga ggggttgatc gaacagccag agggccctag agttccatgc atctaattta      1380
acatccactc cacaccccca gggttaagga gagcaggaaa gcgctccaga tactggggaa      1440
ggggcaacat cagctgctcc ccctctccct tcttctccac ccttccctgc ctgttttcaa      1500
tgaatttctt agctccagcc atacccaatc ttgctgggtg atccaggggc aggggtacgga      1560
aagagggccc caaatcagc ctcttcccc accctagcac tggatactaa ggatgaacga      1620
acagtaacgc caaccttccc ttccatgcag ccctacctgg aaaggagat tttatgacct      1680
gtacagaggg ctgcttgcca gtggggtttt tttttttttt tcattttaa atagttccac      1740
cagtgcctcc caccctccaa actgtcccac cctccccaaa caccctcctc actccctaaa      1800
tccattctga tgagaccggg gtagccaact gaccctgtca aggaaggaac tgggcttgga      1860
atctcgccct gagctgctag cctcccgccc cccctttcca gtggtctcat gccaatgtc      1920
ctgtgcatca gcccccttaa gaagcctccc ccactctggg cgcctcgctt ctagcttagc      1980
tgtcagctgt ccatcacctc ttgccgtgcg tccccactca ctgcaacccc aagtctgatt      2040
gtgctttttt tctcaataga aagggtggga gctgctgggg aaattacccc atttatccct      2100
gtgtttatcc ctctcgtaac ttctcccaaa aaggaggagc tctcaggcct ggggtgggggc      2160
cccggtgga cgaggggggc gttcaacctg tgtgcttcga aggatgagac ttcctcttga      2220
acagtgtgct gttgtaaaca tatttgaaaa ctattaccaa taaagttttg ttttaaaaaa      2280
aaaaaaaaaa aa                                     2292

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&lt;210&gt; 112

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 112

Met Ile Pro Ala Lys Asp Met Ala Lys Val Met Ile Val Met Leu Ala  
 1 5 10 15

Ile Cys Phe Leu Thr Lys Ser Asp Gly Lys Ser Val Lys Lys Arg Ser  
 20 25 30

Val Ser Glu Ile Gln Leu Met His Asn Leu Gly Lys His Leu Asn Ser  
 35 40 45

Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val His Asn  
 50 55 60

Phe Val Ala Leu Gly Ala Pro Leu Ala Pro Arg Asp Ala Gly Ser Gln  
 65 70 75 80

Arg Pro Arg Lys Lys Glu Asp Asn Val Leu Val Glu Ser His Glu Lys  
 85 90 95

Ser Leu Gly Glu Ala Asp Lys Ala Asp Val Asn Val Leu Thr Lys Ala  
 100 105 110

Lys Ser Gln  
 115

&lt;210&gt; 113

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 113

Met Gln Arg Arg Leu Val Gln Gln Trp Ser Val Ala Val Phe Leu Leu  
 1 5 10 15

Ser Tyr Ala Val Pro Ser Cys Gly Arg Ser Val Glu Gly Leu Ser Arg  
 20 25 30

Arg Leu Lys Arg Ala Val Ser Glu His Gln Leu Leu His Asp Lys Gly  
 35 40 45

Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile  
 50 55 60

Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
 65 70 75 80

Asn Ser Lys Pro Ser Pro Asn Thr Lys Asn His Pro Val Arg Phe Gly  
 85 90 95

Ser Asp Asp Glu Gly Arg Tyr Leu Thr Gln Glu Thr Asn Lys Val Glu  
 100 105 110

Thr Tyr Lys Glu Gln Pro Leu Lys Thr Pro Gly Lys Lys Lys Lys Gly  
 115 120 125

Lys Pro Gly Lys Arg Lys Glu Gln Glu Lys Lys Lys Arg Arg Thr Arg  
 130 135 140

Ser Ala Trp Leu Asp Ser Gly Val Thr Gly Ser Gly Leu Glu Gly Asp  
 145 150 155 160

His Leu Ser Asp Thr Ser Thr Thr Ser Leu Glu Leu Asp Ser Arg  
 165 170 175

<210> 114  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> The residue at this position can be Serine or Aspartic acid.

<400> 114

Ala Val Ser Glu His Gln Leu Leu His Xaa  
 1 5 10

<210> 115  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 115

Ser Val Ser Glu Ile Gln Leu Met Asn Leu  
 1 5 10

<210> 116  
 <211> 21  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic

<400> 116

Val Ala Pro Ser Asp Ser Ile Gln Ala Glu Glu Trp Tyr Phe Gly Lys  
 1 5 10 15

Ile Thr Arg Arg Glu  
20